Paper No. 20

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Ex parte ANTEO PELLICONI,
ROSANNA SILVESTRI,
VITTORIO BRAGA
and LUIGI RESCONI

Appeal No. 1998-3115
Application No. 08/384,520

ON BRIEF

Before OWENS, WALTZ, and KRATZ, *Administrative Patent Judges*.
OWENS, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal from the examiner's refusal to allow claims 1-3, 5 and 6 as amended after final rejection. These are all of the claims remaining in the application.

THE INVENTION

The appellants claim a thermoplastic composition and a shaped article made therefrom. Claim 1, which is directed toward the composition, is illustrative:

1. A thermoplastic composition comprising:
(A) from 1 to 99% by weight of an amorphous propylene polymer having the following characteristics:
(i) intrinsic viscosity greater than 1 dl/g;
(ii) percentage of syndiotactic diads (r) minus percentage of isotactic diads (m) greater than 0;
(iii) less than 2% of the CH_2 groups contained in the sequences $(CH_2)_n$, with n greater than or equal to 2;
(iv) Bernouillianity index (B)=1± 0.2;
(v) melting enthalpy value lower than 10 J/g; and
(vi) a ratio of M_w/M_n lower than 4; and
(B) from 1 to 99% by weight of a component B^{II} having the following composition:
(a) 10-50% by weight of at least one polymer selected from the group consisting of propylene homopolymers having an isotactic index higher than 80, and copolymers of propylene with at least one comonomer selected from ethylene and the "-olefins of formula CH_2=CHR where R is an alkyl radical containing from 2 to 8 carbons atoms, said copolymer containing at least 85% by weight of units deriving from propylene,
(b) 0-20% by weight of a copolymer containing ethylene, insoluble in xylene at room temperature, and
(C) 40-80% by weight of a copolymer containing 10-40% by weight of units deriving from ethylene, 90-60% by weight of units deriving from at least one comonomer selected from the group consisting of propylene and the "-olefins of formula CH_2=CHR wherein R is an alkyl radical containing from 2 to 8 carbons atoms, and 0-5% of units deriving from a diene, said copolymer being soluble in xylene at room temperature and

having an intrinsic viscosity from 1.5 to 4 dl/g;

wherein the sum of components (b) and (c) is from 50 to 90% by weight of the polyolefinic composition and the ratio of the amounts by weight of components (b)/(c) is lower than 0.4.

THE REFERENCES

Okazaki et al. (Okazaki)	3,487,128	Dec. 30, 1969
Canich	5,420,217	May 30, 1995
(effective filing date on or before Jun. 23, 1992)		
Yamauchi et al. (JP '528)[1] (Japanese Kokai)	42-22528	Nov. 4, 1967
Tsuruoka et al. (EP '813) (European patent application)	0 455 813	Nov. 13, 1991
Tsurutani et al. (EP '589) (European patent application)	0 527 589	Feb. 17, 1993

THE REJECTIONS

Claims 1-3, 5 and 6 stand rejected as follows: under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the appellants regard as the invention, and under 35 U.S.C. § 103 as being unpatentable over Canich taken with JP '258, EP '813, EP '589 and optionally Okazaki.

OPINION

Rejection under 35 U.S.C. § 112, second paragraph

[1] Our consideration of this reference is based upon an English translation thereof, a copy of which is provided to the appellants with this decision.

The examiner points out that the appellants argued during prosecution that "[c]omponent (c) of component (B) is an ethylene-based copolymer whose properties are different from those of component (A)" (amendment filed on August 1, 1997, paper no. 15, page 3), and argues that, taking that statement to be correct, the claims are indefinite because they do not specify that component (B)(c) is different from component (A) (answer, page 8). The examiner also argues that if components (B)(c) and (A) can be the same, then their relative amounts are indefinite. *See id*.

During patent prosecution, claims are to be given their broadest reasonable interpretation consistent with the specification, as the claim language would have been read by one of ordinary skill in the art in view of the specification and prior art. *See In re Zletz*, 893 F.2d 319, 321, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989); *In re Sneed*, 710 F.2d 1544, 1548, 218 USPQ 385, 388 (Fed. Cir. 1983); *In re Herz*, 537 F.2d 549, 551, 190 USPQ 461, 463 (CCPA 1976); *In re Okuzawa*, 537 F.2d 545, 548, 190 USPQ 464, 466 (CCPA 1976).

The examiner has not pointed out where there is support in the specification or the prior art for interpreting the claims to mean that components (B)(c) and (A) either must be different or can be the same. Nor has the examiner cited authority for the proposition that during patent prosecution, claims can be narrowed by mere attorney argument. Accordingly, we conclude that the examiner has not carried the burden of establishing a *prima facie* case of indefiniteness. Consequently, we reverse the examiner's rejection under 35 U.S.C. § 112, second paragraph.

Rejection under 35 U.S.C. § 103

The examiner argues that EP '813, EP '589 and JP '258 would have fairly suggested the appellants' components (B)(a) and (B)(c) to one of ordinary skill in the art, but that these references do not disclose or suggest the appellants' amorphous propylene polymer (A) (answer, page 5). For a suggestion of this component the examiner relies upon Canich (answer, page 6).[2]

[2] The examiner relies upon Okazaki only for a further demonstration that it was preferred in the art to use a high molecular weight amorphous ethylene/propylene copolymer which, the examiner argues, corresponds to the appellants'

Even if the examiner's findings regarding the teachings of EP '813, EP '589 and JP '258 are correct, the examiner's argument is not persuasive because the examiner has not adequately explained why the applied references would have fairly suggested, to one of ordinary skill in the art, combining the teachings of these references with that of Canich. The examiner's argument is that Canich teaches that a polymer having a high molecular weight and a narrow molecular weight distribution has high strength properties, and that it would have been obvious to one of ordinary skill in the art to include Canich's polymer in the compositions of EP '813, EP '589 and JP '258 for strength improvement (answer, page 6).

The disclosure in Canich relied upon by the examiner (answer, page 6) is: "A high weight average molecular weight, (M_w), when accompanied by a narrow molecular weight distribution, (MWD), provides a polyolefin with high strength properties" (col. 1, lines 42-45). Indeed, high strength is a desirable property of the compositions of EP '813, EP '589

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component (B)(c), in combination with a crystalline, high isotactic index polypropylene, to improve impact resistance (answer, page 7).

and JP ‘258. EP ‘813 teaches that the disclosed flexible polypropylene resin is useful for making, for example, automotive parts, industrial machine parts, electric or electronic parts, and construction materials (page 3, lines 40-43). EP ‘589 teaches that the disclosed soft, flexible polypropylene resin has excellent flexibility and mechanical strength over a temperature range from normal to high temperatures and is useful as, for example, a packaging film or sheet, a building construction sheet, a carpet backing, an insulator for cable, a fiber, and a base material for tape (page 2, lines 21-27). JP ‘258 teaches that the disclosed polypropylene composition has improved impact resistance and can be molded into a film (pages 4 and 7).

Canich teaches, however, that “for such high strength applications, the poly-"-olefin resin must generally have a high degree of crystallinity. Low crystallinity and amorphous poly-"-olefins are useful in adhesive compositions, in compatibilizing applications, as additives, etc.” (col. 3, lines 39-44). Canich also teaches that “[a]tactic polymers exhibit little if any crystallinity, hence they are generally unsuitable for high strength applications regardless of the

weight average molecular weight of the resin" (col. 4, lines 10-13) and that "[a]morphous poly-"-olefins, generally regarded to be atactic, noncrystalline and lacking in a molecular lattice structure which is characteristic of the solid state, tend to lack well defined melting points. Such amorphous poly-"-olefins have uses in adhesives and as compatibilizers among other things" (col. 6, lines 30-35).

The examiner has not explained why, in view of this indication that crystalline polyolefins, but not amorphous polyolefins, provide the high strength property relied upon by the examiner, one of ordinary skill in the art would have been led by the applied references to add an amorphous propylene polymer to the EP '813, EP '589 and JP '258 compositions. Hence, the examiner has not carried the burden of establishing a *prima facie* case of obviousness of the invention recited in any of the appellants' claims. We therefore reverse the examiner's rejection under 35 U.S.C. § 103.

DECISION

The rejections of claims 1-3, 5 and 6 under 35 U.S.C. § 112, second paragraph, and under 35 U.S.C. § 103 over Canich

taken with JP ‘258, EP ‘813, EP ‘589 and optionally Okazaki,

are reversed.

REVERSED

TERRY J. OWENS Administrative Patent Judge	)
THOMAS A. WALTZ Administrative Patent Judge	) BOARD OF PATENT APPEALS AND INTERFERENCES
PETER F. KRATZ Administrative Patent Judge	)

TJO/sld

Appeal No. 1998-3115
Application No. 08/384,520

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Application No. 08/384,520

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DECISION: REVERSED

Prepared: June 14, 2002